Where to Publish

network and service management papers

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What is the message?

1) Focus more on journals
2) Focus more on journals
3) Focus more on journals
4) ...
Overview

1) Why should we / I bother?
2) What publications do exist?
3) How to rank a conference
4) How to rank a journal
5) How to measure your performance
Overview

1) Why should we / I bother?
2) What publications do exist?
3) How to rank a conference
4) How to rank a journal
5) How to measure your performance
Why should we bother?

Publishing at the right venue:
• allows automatic systems to find our publications
• increases the chance others will read our publications

If others read our paper:
• we may be cited
• automatic systems may count our citations

Publications and Citations:
• are used to measure our performance
• are used to allocate research money
Why should we bother?

Maybe we should not bother:

- different ways of counting yields different results
- strategic behaviour
- waste of time and energy

See also: David Lorge Parnas: *Stop the Numbers Game - Counting papers slows the rate of scientific progress*, in Communications of the ACM, Nov 2007 / Vol 50, No 11
Why should I bother?

If you are a PhD student:
• Your PhD committee members will look at it
• Your future employer (if you stay in research) will look at it

If you are a staff member:
• Your future employer (if you change jobs) will look at it
• The evaluation committee, which will report your group’s performance to the university, will look at it

Don’t fight if you know you will loose
Overview

1) Why should we / I bother?
2) What publications do exist?
3) How to rank a conference
4) How to rank a journal
5) How to measure your performance
What publications exist

• Journals
• Conference proceedings
• Workshops proceedings

Some lists can be found at:
• http://www.simpleweb.org/contacts/events.html
• http://www.simpleweb.org/cfp.rss
• http://www.simpleweb.org/conferences.rss
Journals

Specific for Network and Service management:
• IEEE Communications Magazine: Series on N&S Management
• IEEE Transactions on N&S Management
• Journal of Network and Systems Management
• International Journal of Network management

Networking in general:
• IEEE Network
• IEEE Journal on Selected Areas in Communications
• IEEE/ACM Transactions on Networking
• IEEE Surveys and Tutorials
• Elsevier Computer Networks
• Elsevier Computer Communications
• ...
Conferences

Specific for Network and Service management:

• IM / NOMS
• Manweek: DSOM, MMNS, IPOM
• AIMS
• APNOMS
• LANOMS

Networking in general:

• Infocom
• ICC
• Globecom
• ...
Workshops

• “Specific” for Network and Service management:
  • Policy
  • E2EMON
  • BDIM
  • BcN
  • FeBID
  • MUCS
  • ACNM
  • MACE
  • INM
  • ICIMP
  • EVGM
  • SVM
  • Eunice
  • CDGNSM
  • NGNM
  • NDA
  • WNS
  • PM2HW2N
  • CSET
  • NeSS
  • DANMS
  • IMM
  • ...

See: http://www.simpleweb.org/contacts/events.html
What is the general feeling?

Journals
• Highest quality
• Automatically indexed / ranked

Conference proceedings
• Medium quality
• Not indexed / ranked

Workshops proceedings
• Lowest quality
Overview

1) Why should we / I bother?
2) What publications do exist?
3) How to rank a conference
4) How to rank a journal
5) How to measure your performance
How to rank a conference

Acceptance rates

Lists of conference publications / citations

Lists of conference rankings
How to rank a conference

Acceptance rates

Lists of conference publications / citations

Lists of conference rankings
Acceptance rate conferences

source: http://www.cs.ucsb.edu/~almeroth/conf/stats/
How to rank a conference

Acceptance rates

Lists of conference publications / citations

Lists of conference rankings
Lists of conference publications / citations

Libra:
- Microsoft Research Asia
- Has similar list for Journals
- Has also author ranking

Note added later: link changed into:
- http://academic.research.microsoft.com/
<table>
<thead>
<tr>
<th></th>
<th>Publications</th>
<th>Citations</th>
<th>Citation / publication</th>
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<tr>
<td>INFOCOM</td>
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<td>32596</td>
<td>8.34</td>
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<td>IM</td>
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<td>DSOM</td>
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<td>1303</td>
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<td>APNOMS</td>
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</table>
How to rank a conference

Acceptance rates

Lists of conference publications / citations

Lists of conference rankings
Lists of conference rankings - I

Australian Ranking of ICT Conferences


Computer Science Conference Ranking

- www.cs-conference-ranking.org

Note added later: see also:
- http://www.rankingexpose.com/
- http://www.simpleweb.org/wiki/Conference_Ranking

Citeseer

- http://citeseerx.ist.psu.edu/stats/venues
- Results seem very “strange”:
  - Sigcomm on position 9 (0.31)
  - Infocom on position 93 (0.07)
  - IEEE Network om position 342 (0.02)
  - DSOM on position 345 (0.02)
Lists of conference rankings - II

Computer Science Department Conference Rankings
http://www.comp.nus.edu.sg/~harishk/mysoc_confs.htm

Computer Science Conference Rankings
http://www-static.cc.gatech.edu/~guofei/CS_ConfRank.htm

Conferencing-Ranking / CS Conference Ranking
http://cs.conference-ranking.net/
http://www.conference-ranking.org/

Computer Science Conference Rankings
http://www.cs.ualberta.ca/~zaiane/htmldocs/ConfRanking.html

Journal and conference ranking lists

Note added later: see also:
- http://www.rankingexpose.com/
- http://www.simpleweb.org/wiki/Conference_Ranking
Australian Ranking of ICT Conferences

A⁺: 6%, A: 27%, B: 31%, U: 29%, L: 6%

Specific for Network and Service management:
- IM: A
- NOMS: B
- DSOM: B
- MMNS:
- IPOM:
- APNOIMS: B

Networking in general:
- INFOCOM: A⁺
- ICC: A
- Globecom: B
Computer Science Conference Ranking

Uses “Estimated Impact of Conference”

- CP: 30% - citation of papers
- RR: 30% - quality of referees' reports
- RS: 25% - availability of resources to students by the conference (funds for travel, fees, hotel)
- JA: 10% - conference papers accepted/appeared in reputable journals after the conference
- IN: 5% indexing

- SIGCOMM: Conf on Comm Architectures, Protocols & Apps (0.99)
- INFOCOM: Annual Joint Conf IEEE Comp & Comm Soc (0.99)
- ... 
- NOMS: IEEE Network Operations and Management Symp (0.62)
- IM, DSOM, MMNS, IPOM, .... : not listed (<0.5)
How to rank a conference

Conclusion conference ranking lists:
– many different ranking sites exist
– ranking criteria are often unclear
– results are sometimes questionable
– gives only very rough idea
Overview

1) Why should we / I bother?

2) What publications do exist?

3) How to rank a conference

4) How to rank a journal

5) How to measure your performance
How to rank a journal

Acceptance rates

Citation index / Impact factors
- ISI - Thomson Scientific
- Scopus - Elsevier
- Citeseer
How to rank a journal

Acceptance rates

Citation index / Impact factors
  – ISI - Thomson Scientific
  – Scopus - Elsevier
  – Citeseer$^x$
Acceptance rate journals

- IEEE Communications Magazine
- IEEE TNSM
- JNSM
- IJNM
Acceptance rate ComMag

![Graph showing acceptance rate for ComMag over six years. The x-axis represents years, and the y-axis represents the acceptance rate percentage. The graph shows a trend line with data points indicating fluctuations in the acceptance rate.]
Acceptance rate TNSM

Precise figures have not been made public
  – Early issues likely between 23 and 35%
  – Current issues likely between 15 and 20%

According to CNOM / IFIP report at NOMS08
  – 141 submissions in 2007
  – 16 accepted
  – 90 rejected
  – 11 conditionally accepted
  – 24 in review
Acceptance rate JNSM

Precise figures have not been made public

Figures presented at NOMS 2008:
- First issues (1996) around 70%
- All years: <50% for general issues
- All years: <30% for special issues
- Currently: 30% for general issues
- Currently: 20% for special issues
Acceptance rate IJNM

Precise figures have not been made public

Current estimates:

• around 33% for open call
• less for special issues
How to rank a journal

Acceptance rates

Citation index / Impact factors
  – ISI - Thomson Scientific
  – Scopus - Elsevier
  – Citeseer\textsuperscript{x}
ISI - Thomson Scientific

1960: Institute for Scientific Information (ISI)

- Thomson Scientific Division
- ISI Web of Knowledge
  - Journal Citation Reports (JCR)
- Web of Science
  - Science Citation Index (SCI)
  - Licensed to universities and research institutes
  - Access via your university
Journals included by Thomson

Master list can be queried online
  – http://scientific.thomsonreuters.com/mjl/
  – Before a journal gets an impact factor, it should at least 3 years by included in the SCI

Included:
- IEEE Communications Magazine
- Journal on Network and Service Management
# Main IEEE Journals

<table>
<thead>
<tr>
<th>Journal</th>
<th>ISSN</th>
<th>Cites 2007</th>
<th>Impact Factor</th>
<th>Immediacy Index</th>
<th>2007 articles</th>
<th>Cited half-live</th>
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<td>JSAC</td>
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<td>175</td>
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<td>Com. Mag.</td>
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<td>165</td>
<td>5,6</td>
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<tr>
<td>Internet Comp.</td>
<td>1089-7801</td>
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<td>Trans. Comm.</td>
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<td>0,391</td>
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<td>299</td>
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© ISI Web of Knowledge
Impact factor ComMag

IEEE COMMUNICATIONS MAGAZINE

<table>
<thead>
<tr>
<th>JCR Years</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
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<td>Impact Factors</td>
<td>2.406</td>
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<td>1.946</td>
<td>1.678</td>
<td>1.704</td>
</tr>
</tbody>
</table>

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Impact factor other IEEE Journals

- **IEEE Journal on Selected Areas in Communications**
  - 2003: 1.967
  - 2004: 2.648
  - 2005: 2.698
  - 2006: 1.816
  - 2007: 1.799

- **IEEE Network**
  - 2003: 3.871
  - 2004: 2.667
  - 2005: 2.792
  - 2006: 2.721
  - 2007: 1.689

- **IEEE Internet Computing**
  - 2003: 2.579
  - 2004: 2.554
  - 2005: 2.384
  - 2006: 1.935
  - 2007: 1.551

- **IEEE Transactions on Communications**
  - 2003: 1.665
  - 2004: 1.459
  - 2005: 1.490
  - 2006: 1.288
  - 2007: 1.302

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Is an impact factor useful?

The impact factor is calculated over a three-year period. It can be considered as the average number of times published papers are cited up to two years after publication.

Example

- A = the number of times articles published in 2006-7 were cited in indexed journals during 2008
- B = the number of articles published in 2006-7
- Impact factor 2008 = A/B
Citations to ComMag articles

© ISI Web of Knowledge
See: http://www.scopus.com/scopus/home.url

Included:

- IEEE Communications Magazine
- Journal on Network and Service Management
- International Journal on Network Management
- LNCS conferences (DSOM, MMNS, IPOM, ...)
- Several other conferences
# Thomson SCI versus Scopus

<table>
<thead>
<tr>
<th></th>
<th>Thomson SCI</th>
<th>Scopus</th>
</tr>
</thead>
<tbody>
<tr>
<td>ComMag</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>TNSM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JNSM</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>IJNM</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>LNCS (DSOM, MMNS, ...)</td>
<td>until 2005</td>
<td>✔️</td>
</tr>
<tr>
<td>IM</td>
<td></td>
<td>2005, 2007</td>
</tr>
<tr>
<td>NOMS</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>E2EMon</td>
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<td>✔️</td>
</tr>
<tr>
<td>Comp. Netw.</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Comp. Comm.</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>
Example Scopus: IJNM and JNSM
Example Scopus: ComMag

Note: Scopus does not have complete citation information for articles published before 1996.
Calculations Last Updated: 05 May 2008

Total Citations = Total number of citations received by a journal in the year, considering all articles
Example Scopus: # of articles

Note: Scopus does not have complete citation information for articles published before 1996.
Calculations Last Updated: 05 May 2008

Articles Published = Total number of articles published in the journal in the year

Journals In Chart
- International Journal of Network Management
- Journal of Network and Systems Management
- IEEE Communications Magazine
Overview

1) Why should we / I bother?
2) What publications do exist?
3) How to rank a conference
4) How to rank a journal
5) How to measure your performance
How to measure your performance

1) H-index

2) Bibliometric data analysis
How to measure your performance

1) H-index

2) Bibliometric data analysis
See: http://en.wikipedia.org/wiki/Hirsch_number

An index value of $x$ means:

you have at least $x$ publications
that are each cited at least $x$ times

To determine your H-index, you can use:

– Google scholar
  • Publish or Perish: http://www.harzing.com/resources.htm#/pop.htm
– Scopus
– Web of Science
H-index - some numbers*

* Analysis performed July 1st, 2008
Numbers may not always be correct!
H-index for 35,599 unique people in Engineering, Computer Science, and Mathematics

according to the log file of: http://www.brics.dk/~mis/hnumber.html
How to measure your performance

1) H-index

2) Bibliometric data analysis
Bibliometric data analysis

CWTS Leiden - Ton van Raan

- http://www.socialsciences.leidenuniv.nl/cwts/

Uses following metrics:

- CPP: the average number of citations per publication (for a person or group). Self-citations are not included
- JCS: the average journal citation-score
- FCS\textsubscript{m}: the average citation rate of all articles in the subfield $m$
Calculation of CPP, JCS and FCS (I)

<table>
<thead>
<tr>
<th>Article</th>
<th>Citations CPP</th>
<th>JCS</th>
<th>FCS</th>
</tr>
</thead>
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<tr>
<td>1</td>
<td>7</td>
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<td>14,8</td>
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<td>4</td>
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<td>3,6</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>2</td>
<td>3,6</td>
</tr>
</tbody>
</table>
Calculation of CPP, JCS and FCS (II)

CPP = (7 + 4 + 5) / 3 = 5,33

JCS = (5 + 7 + 2) / 3 = 4,66

FCS = (14,8 + 3,6 + 3,6) / 3 = 7,33

CPP/FCS = 5,33 / 7,33 = 0,73

– normalised citation impact indicator
Normalised citation impact indicator

CPP/FCSm < 0.80
  – performance significantly below internat. average

0.80 < CPP/FCSm < 1.20
  – performance about internat. average

1.20 < CPP/FCSm < 2.00
  – performance significantly above internat. average

2.00 < CPP/FCSm < 3.00
  – performance in internat. perspective is very good

CPP/FCSm > 3.00
  – performance in internat. perspective is excellent
Conclusions

Others care about your performance

So you better care too!

Publish more in Journals
Some References and URLs

1. David Lorge Parnas: Stop the Numbers Game - Counting papers slows the rate of scientific progress, in Communications of the ACM, Nov 2007 / Vol 50, No 11

2. Networking Conferences Statistics:  
   http://www.cs.ucsb.edu/~almeroth/conf/stats/#mmns

3. Final 2007 Australian Ranking of ICT Conferences:  
   http://www.core.edu.au/rankings/Conference%20Ranking%20Main.html

